

488-165!

**CONFIDENTIAL**

**CONFIDENTIAL**

## REPORT

CD NO.

DATE OF INFORMATION 1950

DATE DIST. / 8 Aug 1950

NO. OF PAGES 2

SUPPLEMENT TO  
REPORT NO.

SUPPLEMENT TO  
REPORT NO.

SUPPLEMENT TO  
REPORT NO.

THIS DOCUMENT CONTAINS INFORMATION AFFECTING THE NATIONAL DEFENSE OF THE UNITED STATES WITHIN THE MEANINGS OF ESPIONAGE ACT 50 U. S. C., 31 AND 32, AS AMENDED. ITS TRANSMISSION OR THE REVELATION OF ITS CONTENTS IN ANY MANNER TO AN UNAUTHORIZED PERSON IS PROHIBITED BY LAW. REPRODUCTION OF THIS FORM IS PROHIBITED.

THIS IS UNEVALUATED INFORMATION

SOURCE Priroda, Vol XXXIX, No 3, 1950.

REACTIONS OF ANIMALS DURING BOMBING

M. S. Ippolitov

The reaction of the animal organism to unusual, sudden irritations has not been adequately described. Such irritations may cause changes in the organism which are based on biochemical shifts and which are typical of the state commonly described as the condition following shell shock. Our data revealed the following examples which may be of general interest.

While a convoy was being loaded, an enemy air attack took place at 2010 hours. During this air attack, two demolition bombs and several incendiary bombs were released. In one of the railroad cars, three horses were killed and three other horses were thrown off their feet by the explosion wave. The "all clear" was sounded at 0420 hours. Examination of the three surviving horses revealed that two showed loss of hair, and all three exhibited a general state of depression. Under rather similar conditions we examined a cow which suffered loss of hair 3 days after the locality in question had been bombed from the air.

Some animals were in railroad cars which were strafed from the air. During this attack, there was intensive firing of antiaircraft machine guns in the immediate vicinity. After the attack, the animals exhibited changes in the biochemical indices of the blood, as shown in the following table:

	<u>Horses</u>	<u>Cows</u>
No of animals examined	10	4
Reduction of Ca in mg %	1.5	1.0
Increase of leucocytes in thousands	6,000	2,000
Reduction of hemoglobin in Sahli units	3	6
Reduction of erythrocytes in millions	0.9	1.2

**CONFIDENTIAL**

- 1 -

**CONFIDENTIAL**

CLASSIFICATION		CONFIDENTIAL	
STATE	<input checked="" type="checkbox"/> NAVY	<input checked="" type="checkbox"/> NSRB	DISTRIBUTION
ARMY	<input checked="" type="checkbox"/> AIR	<input checked="" type="checkbox"/> FBI	

**CONFIDENTIAL**

CONFIDENTIAL

50X1-HUM

Some animals in railroad cars were exposed to the effect of small aircraft bombs exploding at a distance of 50-100 meters from the car under such conditions that the explosion wave moved in a direction different from that of the car. The changes in the blood were as follows:

	<u>Horses</u>	<u>Cows</u>
No of animals examined	3	1
Reduction of Ca in mg %	2.5	2.2
Increase of leucocytes in thousands	9,500	12,000
Reduction of hemoglobin in Sahli units	12	9
Reduction of erythrocytes in millions	2.0	2.4

The observations mentioned above, which were made during the World War II, are of general interest from the biological viewpoint because they explain phenomena associated with the condition produced by shell shock.

- E N D -

- 2 -

CONFIDENTIAL

**CONFIDENTIAL**